

Serial No. 09/736,755
Amdt. dated May 24, 2004
Reply to Office Action of February 23, 2004

Attorney Docket No. PF02006NA

REMARKS/ARGUMENTS

In the specification, the Abstract at page 38 and the paragraph beginning at page 6, line 15, have been amended to correct minor editorial problems. A replacement page of the Abstract accompanies this response. Approval of these changes to the specification is respectfully requested.

Claims 1 through 19 remain in this application.

Claim 12 is rejected under 35 U.S.C. §102(c) as being anticipated by U.S. Patent No. 6,256,334 to Adachi ("Adachi patent"). Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,570,352 to Poyhonen ("Poyhonen patent") in view of the Adachi patent. Claims 3, 4 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Poyhonen patent in view of the Adachi patent and U.S. Application No. 2001/0002912 to Tony, et al. ("Tony, et al. publication"). Claims 7 through 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Poyhonen patent in view of the Adachi patent and U.S. Patent No. 6,608,821 to Gendel ("Gendel patent"). Claims 13 and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Adachi patent in view of the Tony, et al. publication. Claims 15 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Adachi patent in view of the Tony, et al. publication and the Poyhonen patent. Claims 17 through 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Adachi patent in view of the Gendel patent.

Serial No. 09/736,755

Attorney Docket No. PF02006NA

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Claim 1 provides a data communication system comprising a plurality of radio devices communicating together in groups defining networks, at least certain member devices of the networks transmitting on the respective the network during time slots and at radio frequencies determined by a frequency hopping sequence; wherein at least two of the groups having different frequency hopping sequences are sufficiently related that messages transmitted by at least two of the member devices can collide by causing at least one of co-channel and related channel interference between messages of the at least two the groups; wherein at least one of the devices compares the different radio frequency hopping sequences of the at least two the groups and identifies time slots at which the sequences coincide sufficiently to produce the interference; and, wherein at least one of the networks alters its behavior during the time slots at which the sequences coincide sufficiently to produce the interference, in a manner that reduces one of an incidence and an effect of collisions during the time slots when the sequences collide. Thus, claim 1 provides, *inter alia*, a network alters its behavior to provide interference of two member devices having different frequency hopping sequences.

Likewise, claim 12 provides a method of data communication using a plurality of peer devices, comprising the steps of establishing wireless frequency hopping communications between two or more of the devices such that a plurality of the devices associated as members of a first wireless network are synchronized to time slots and operable to step through a predetermined frequency hopping sequence; establishing wireless frequency hopping communications between two or more of the devices such that a different plurality of the devices are similarly associated as members of a second wireless network operable to step through a different predetermined frequency hopping sequence, wherein the frequency hopping sequences

Serial No. 09/736,755

Attorney Docket No. PF02006NA

Amdt. dated May 24, 2004

Reply to Office Action of February 23, 2004

of the first and second wireless networks differ but can coincide in particular time slots;
comparing the frequency hopping sequences of the first and second wireless networks over a prediction interval and identifying time slots in which the frequency hopping sequences coincide; and altering a behavior of at least one of the first and second wireless networks such that one of the first and second wireless networks has improved ability to receive during the time slots in which the frequency hopping sequences coincide. Thus, claim 12 provides, *inter alia*, altering the behavior of a network to improve the ability to receive during time slots in which different frequency hopping sequences coincide.

In contrast, the Poyhonen patent does not disclose comparing, by at least one of the device, different radio frequency hopping sequences of at least two groups and identifying time slots at which the sequences coincide sufficiently to produce interference, as stated at page 5, lines 6 through 11, of the above Office Action.

On the other hand, the above Office Action states that the Adachi patent discloses a base station apparatus for a radio-communication network in which at least one of the devices compares the different radio frequency hopping sequences of at least two groups and identifies time slots at which the sequences coincide sufficiently to produce interference (citing col. 5, lines 6 through 16, of the Poyhonen patent).

Applicants respectfully traverse the above rejection of claims 1 and 12 and would like to clarify the operation of the apparatus described by the Adachi patent. The Adachi patent describes a base station apparatus that improves throughput of a network system by adjusting the timing of the same frequency hopping sequences so that they do not use coinciding time slots.

Serial No. 09/736,755

Attorney Docket No. PF02006NA

Amdt. dated May 24, 2004

Reply to Office Action of February 23, 2004

The Adachi patent does not describe or suggest a system or method of adjusting the timing of different frequency hopping sequences so that they use coinciding time slots, as required by claims 1 and 12. Likewise, the Tony, et al. publication and the Gendel patent do not describe or suggest a system or method of adjusting the timing of different frequency hopping sequences so that they use coinciding time slots. Therefore, claims 1 and 12 distinguish patentably from the Adachi patent, the Poyhonen patent, the Tony, et al. publication, the Gendel patent and any combination of these references.

Claims 2 through 11 and 13 through 19 depend from and include all limitations of independent claims 1 and 12. Therefore, claims 2 through 11 and 13 through 19 distinguish patentably from the Adachi patent, the Poyhonen patent, the Tony, et al. publication, the Gendel patent and any combination of these references for the reasons stated above for independent claims 1 and 12.

In view of the above, reconsideration and withdrawal of the rejections of claims 1 through 19 are respectfully requested.

CONCLUSION

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. Also, no amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Serial No. 09/736,755

Attorney Docket No. PF02006NA


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The Commissioner is hereby authorized to deduct any additional fees arising as a result of this response, including any fees for Extensions of Time, or any other communication from or to credit any overpayments to Deposit Account No. 50-2117.

It is submitted that the claims clearly define the invention, are supported by the specification and drawings, and are in a condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Should the Examiner have any questions or concerns that may expedite prosecution of the present application, the Examiner is encouraged to telephone the undersigned.

Respectfully submitted,
Souissi, Slim, et al.

 05/24/04
Hisashi D. Watanabe Date
Attorney for Applicant(s)
Registration No. 37,465
Telephone: (847) 523-2322
Facsimile: (847) 523-2350

Please forward all correspondence to:
Motorola, Inc.
Law Department (HDW)
600 North US Highway 45, AS437
Libertyville, IL 60048